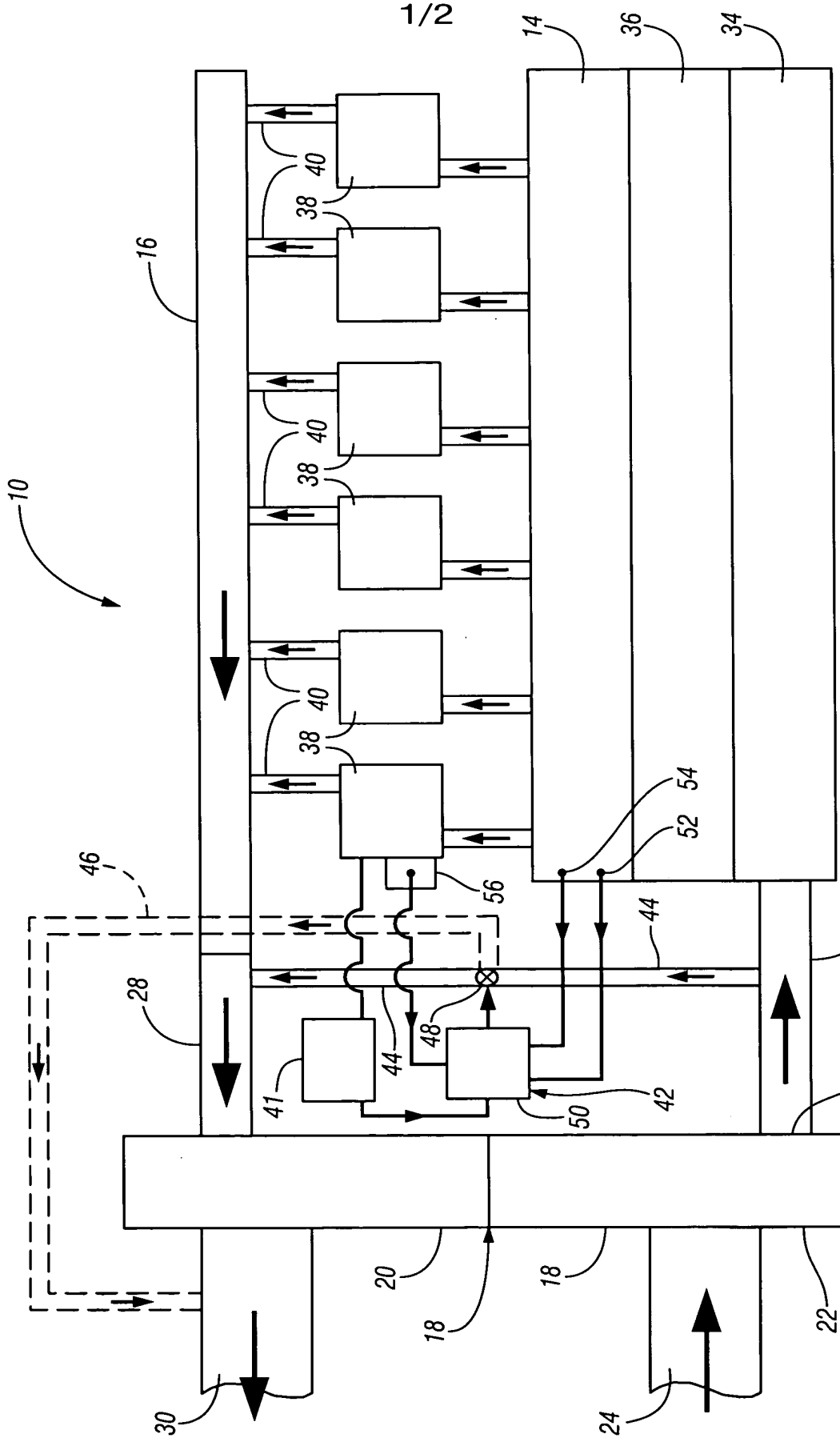
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FIG. 1

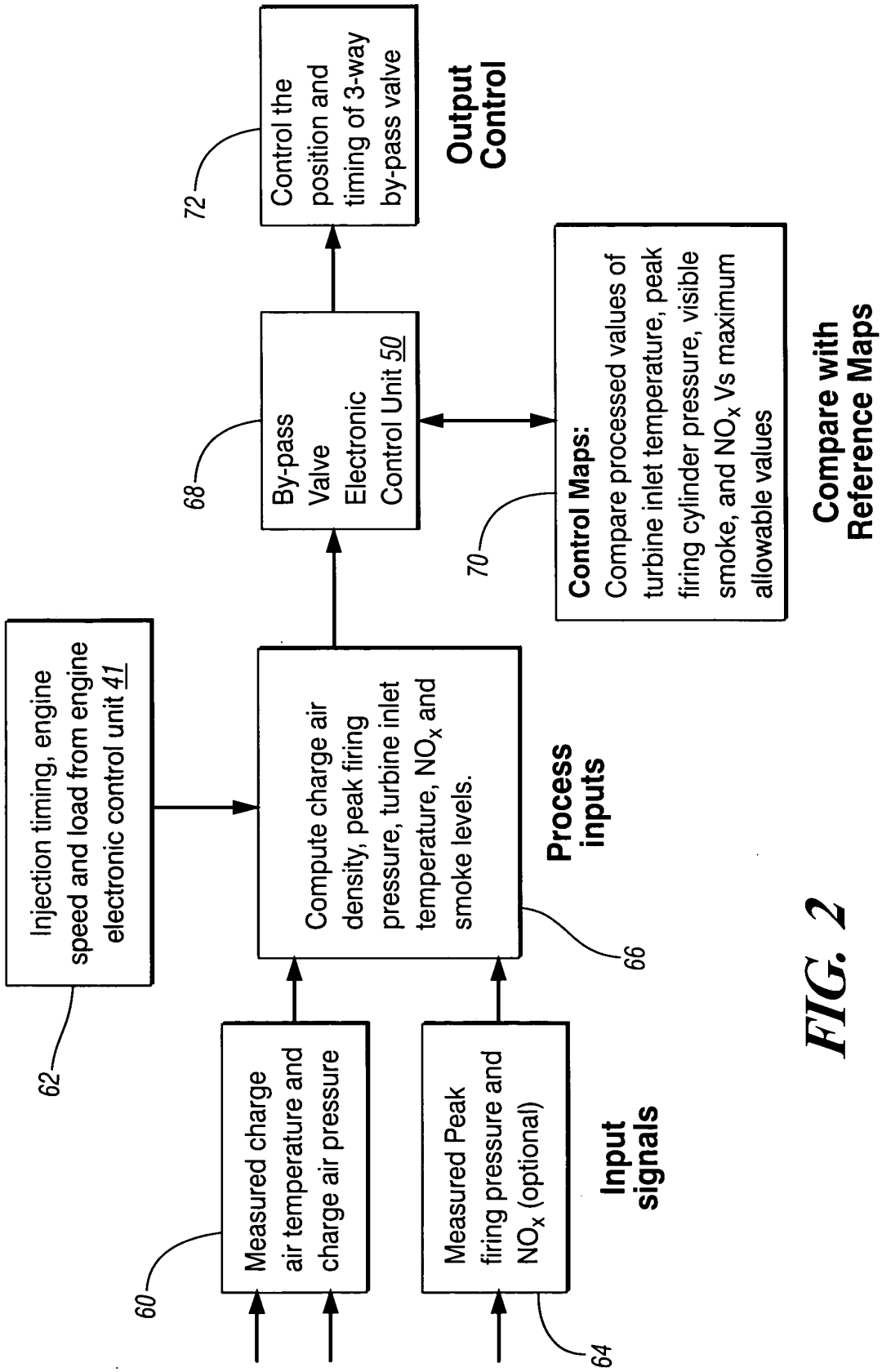
Measured charge air temperature and charge air pressure
Measured Peak firing pressure and NO_x (optional)
Input signals
Injection timing, engine speed and load from engine electronic control unit 41
Compute charge air density, peak firing pressure, turbine inlet temperature, NO_x and smoke levels.
Process inputs
By-pass Valve Electronic Control Unit 50
Control Maps: Compare processed values of turbine inlet temperature, peak firing cylinder pressure, visible smoke, and NO_x Vs maximum allowable values
Compare with Reference Maps
Control the position and timing of 3-way by-pass valve
Output Control
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FIG. 2